sensor detecting touch. The same capacitive touch sensor may be responsible for detecting user's clicks, double-clicks etc.

[0044] The most important circuit of the system is the rheological fluid activation controller **307**, which based on the input from the accelerometer **302** determined which activation means **108** are to be activated in the current position of the device **101**. Preferably, the level of the rheological fluid is also taken into account by the rheological fluid activation controller **307** when determining which activation means should be activated.

[0045] In case when there are only two activation means when electrorheological fluid is used, the input of the accelerometer **302** is not required as a part of the determination.

[0046] FIG. **4** shows a method according to the present invention. The method starts at step **401** where the system awaits detection of an operator's hand by the operator's hand detector **306** (There may be other predefined conditions required for the rheological fluid activation controller **307** to control the rheological fluid activation means **108**) so that the spherical device **101** may switch between a free rolling state and a fixed state and vice versa.

[0047] In case the operator's hand is detected on the device **101**, at step **402** the systems allows a free flow of the rheological fluid within the cavity **105** i.e. the rheological fluid activation controller **307** deactivates all activation means **108**.

[0048] As long as the operator holds the device **101**, the system allows free flow of the rheological fluid **403**. When the operator's hand detector **306** detects **404** that the operator has released the device **101**, it preferably immediately notifies the rheological fluid activation controller **307** that activates selected activation means **108** in order to make the rheological fluid solid **405** in the cavity **105**. The rheological fluid activation controller **307** may take into account the input from the accelerator **302** and the amount/level of rheological fluid that may be stored as a parameter in the memory **309**.

[0049] The advantages of the present invention utilizing a gyroscope-based input device having a spherical shape are that the wrist and arm of a user will be resting on a stable surface, avoiding unwanted stress on hand's muscles, more precise when manipulating on small icons or checkboxes of a Graphical User Interface, the device can be used on various rough surfaces, clothes, couches etc not suitable for example for optical devices.

[0050] Additionally, the automatic, adaptive balancing of an input device **101**, according to the present invention, avoids unwanted cursor movement or click when the input device **101** is in an idle state.

[0051] It can be easily recognized, by one skilled in the art, that the aforementioned method for balancing an input device may be performed and/or controlled by one or more computer programs. Such computer programs are typically executed by utilizing the computing resources of the device. The computer programs can be stored in a non-volatile memory, for example a flash memory or in a volatile memory, for example RAM and are executed by the processing unit. These memories are exemplary recording media for storing computer programs comprising computer-executable instructions performing all the steps of the computer-implemented method according the technical concept presented herein.

[0052] While the invention presented herein has been depicted, described, and has been defined with reference to particular preferred embodiments, such references and examples of implementation in the foregoing specification do not imply any limitation on the invention. It will, however, be evident that various modifications and changes may be made thereto without departing from the broader scope of the technical concept. The presented preferred embodiments are exemplary only, and are not exhaustive of the scope of the technical concept presented herein.

[0053] Accordingly, the scope of protection is not limited to the preferred embodiments described in the specification, but is only limited by the claims that follow.

[0054] In addition, any combination of the appended claims in envisaged in the present application.

1. A system for balancing an input device, the system comprising:

a spherical device **101** having an outer spherical wall **102** and an inner spherical wall **103**

the system being characterized in that it further comprises:

an internal circuitry module **106** housing internal circuits and positioned in the center of the spherical device **101** and balanced in the center in order hold the spherical device **101** still on a flat surface;

a cavity **105** formed between the outer spherical wall **102** and the inner spherical wall **103**;

a rheological fluid disposed in the cavity **105**

wherein the volume of the rheological fluid is below 50% of the volume of the cavity **105** and such that the weight of the rheological fluid is above the weight of the spherical device **101** without the rheological fluid;

wherein at least one of the outer spherical wall **102** and the inner spherical wall **103** comprises a rheological fluid activation means **108** configured to change the state of the rheological fluid; and

a rheological fluid activation controller **307** configured to control the rheological fluid activation means **108** in response to occurrence of a predefined condition so that the spherical device **101** may switch between a free rolling state and a fixed state.

2. The system according to claim **1**, characterized in that the rheological fluid is an electrorheological fluid or a megnetorheological fluid.

3. The system according to claim **2**, characterized in that in case of the electrorheological fluid the activation means **108** are electrodes, while in case of the magnetorheological fluid the activation means **108** are coils.

4. The system according to claim **1**, characterized in that there are **8** activation means **108** per perimeter on the inner wall **103** and/or the outer wall **102**.

5. The system according to claim **1**, characterized in that the spherical device **101** comprises an accelerometer **302** based on the output of which the rheological fluid activation controller **307** will determine which subset of the activation means **108** shall be activated depending on the position of the spherical device **101**.

6. The system according to claim **1**, characterized in that the activation means **108** are positioned adjacent each other.

7. The system according to claim **1**, characterized in that the activation means **108** are spread by a distance between them.

8. The system according to claim **5**, characterized in that based on a vector of acceleration, determined from the